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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,442	03/29/2001	Kenji Nakamura	15162/03490	1740

24367 7590 06/18/2004

SIDLEY AUSTIN BROWN & WOOD LLP
717 NORTH HARWOOD
SUITE 3400
DALLAS, TX 75201

EXAMINER	
NGUYEN, LUONG TRUNG	
ART UNIT	**PAPER NUMBER**
2612	4

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/821,442	NAKAMURA, KENJI	
	Examiner	Art Unit	
	LUONG T NGUYEN	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-11 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 29 March 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities:

In the specification, page 3, line 5, "Summery" should be changed to --Summary--.

In specification (Abstract of the Disclosure), page 40, line 10, "witting different programs" should be changed to --writing different programs--.

Appropriate correction is required.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 8, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (U. S. 2002/0057351) in view of Suzuki (U. S. Patent No. 6,380,975).

Regarding claim 1, Suzuki et al. discloses a camera comprising a mode selector (Figure 12 shows that the user can select mode, such as recording mode, playback mode) for selecting one of a first mode (recording mode, Figure 12, Page 7, Section [0112]) for executing a first image data processing (processing image data by DSP 33, compression/expansion circuit 38, buffer memory 37, memory card 24, Figure 4, Page 7, Section [0112]) to an image data taken by an image pickup device (CCD 20, Figure 4) and a second mode (playback mode, Figure 12, Page 7, Section [0112]) for executing a second image data processing contents of which are different from that of the first image data processing (image data recorded in memory card is read out through buffer memory, compression/expansion circuit 38, LCD 6, Figure 4, Page 7, Sections [0056], [0112]); a calculator in which a logic circuit for executing a predetermined operation to an inputted image data when a predetermined program is written (FGPA, Page 3, Section [0054]).

Suzuki et al. fails to specifically discloses a memory for memorizing a first program corresponding to the first image data processing and a second program corresponding to the second image data processing; and a controller for reading the first program from the memory and writing it in the calculator when the first mode is selected by the mode selector and for reading the second program from the memory and writing it in the calculator when the second mode is selected by the mode selector. However, Suzuki et al. discloses CPU 34 is a

programmed microprocessor controls processing image data readout from CCD 20 to be recorded on memory card 24 or to be displayed on LCD 6, Page 3, Section [0054]. And Suzuki ('975) discloses a digital camera, in which an image compressing/extending means is realized by a control program stored in the CPU 113 (Column 30, Lines 21-36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Suzuki et al. by the teaching of Suzuki ('975) in order to execute compression or expansion by program. This improves operability and convenience in data transfer from a digital camera to an external device (Column 30, Lines 12-14).

Regarding claim 2, Suzuki et al. discloses the first mode is an image pickup mode for taking an image data by photoelectric transferring an optical image of an object (recording mode, CCD 20 electrically converts the light image into image signals; the image signals are recorded on memory card 24 via compression circuit 38, Figures 4, 12, Page 7, Section [0112]); the second mode is a reproducing mode (playback mode, Figures 4, 12, Page 7, Section [0112]) for reproducing an image on a display (LCD 6, Figure 4, Page 3, Section [0056]) by using an image data taken by the image pickup mode; the first image data processing is a data compression processing of the image data taken by the image pickup mode (compression in compression/expansion circuit 38, Figure 4, Page 3, Section [0051]); and the second image data processing is a data extension processing of a compressed image data (expansion in compression/expansion circuit 38, Figure 4, Page 3, Section [0056]).

Regarding claim 3, Suzuki et al. discloses the calculator is a field programmable gate array FGPA, Page 3, Section [0054]).

Regarding claim 8, Suzuki et al. discloses a camera comprising an image processing selector for selecting an image processing among a plurality of image processing corresponding to different characteristics with respect to quality of an image (Figure 12 shows that the user can select mode, such as image processing for recording mode or playback mode); a calculator in which a logic circuit for executing a predetermined operation to an inputted image data when a predetermined program is written (FGPA, Page 3, Section [0054]).

Suzuki et al. fails to specifically disclose a memory for memorizing a plurality of programs corresponding to the plurality of image processing; and a controller for reading, a program corresponding to the image processing selected by the image processing selector and writing it in the calculator. However, Suzuki et al. discloses CPU 34 is a programmed microprocessor controls processing image data readout from CCD 20 to be recorded on memory card 24 or to be displayed on LCD 6, Page 3, Section [0054]. And Suzuki ('975) discloses a digital camera, in which an image compressing/extending means is realized by a control program stored in the CPU 113 (Column 30, Lines 21-36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Suzuki et al. by the teaching of Suzuki ('975) in order to execute compression or expansion by program. This improves operability and convenience in data transfer from a digital camera to an external device (Column 30, Lines 12-14).

Regarding claim 11, Suzuki et al. discloses the calculator is a field programmable gate array FGPA, Page 3, Section [0054]).

6. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomaszewski (US 2001/0001563) in view of Clemens (WO 99/40723) in view of Suzuki et al. (U. S. 2002/0057351) further in view of Anderson et al. (U. S. Patent No. 6,567,122).

Regarding claim 4, Tomaszewski discloses a camera comprising a connection portion (USB serial port 107, Figure 3A, Page 3, Section [0024]) to which a first equipment (USB cable line Figure 3A, Page 3, Section [0024]), the first equipment be communicative a data with the camera by a first data communication standard; a detector for judging a kind of data communication standard of an equipment connected to the connection portion (the USB connectivity is detected by the presence of the VBUS signal 210, which is detected by VBUS signal checker 500, Figures 4-5, Page 2, Section [0029] through Section [0034]; a controller (camera manager 501, Figure 5, Section [0029] through Section [0034] for reading the first program from the memory and writing it in the calculator when the kind of the data communication standard of the equipment connected to the communication portion is judged as the first data communication standard by the detector.

Tomaszewski fails to disclose a second equipment and the second equipment be communicative a data with the camera by a second data communication standard; reading a second program from the memory and writing it in the calculator when the kind of the data communication standard of the equipment is judged as the second data communication standard.

However, Clemens discloses an apparatus in which the digital camera 10 is tethered to the computer 12 by a Universal Serial Bus USB or RS-232 serial interface (Figure 1, Page 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Tomaszewski by the teaching of Clemens in order to connect a digital camera to a computer by using different type of bus.

Tomaszewski and Clemens fail to disclose a calculator in which a logic circuit for executing a predetermined operation to an inputted image data when a predetermined program is written. However, Suzuki et al. discloses an electronic camera, which comprises a CPU 34 which is preferably implemented a programmed logic device, such as FGPA. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Tomaszewski and Clemens by the teaching of Suzuki et al. in order to control the operation of the camera.

Tomaszewski, Clemens and Suzuki et al. do not disclose a memory for memorizing a first program corresponding to a first image data communication processing fitting for the first data communication standard and a second program corresponding to a second image data communication processing fitting for the second data communication standard. However, Anderson et al. discloses a digital camera, in which an application software for operating USB connection is stored in DRAM 346, Figures 3, 9, Column 12, Lines 23-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Tomaszewski, Clemens and Suzuki et al. by the teaching of Anderson et al. in order to store program for controlling connection between a digital camera and a computer.

Regarding claim 5, Clemens discloses the first data communication standard and the second data communication standard are respectively a USB standard and an RS-232C standard (Page 8).

Regarding claim 6, Tomaszewski discloses wherein the equipment to be connected to the connection portion is an equipment which can execute an image data processing (Page 1, Section [0021].

Regarding claim 7, Suzuki et al. discloses the calculator is a field programmable gate array (PGPA, Page 3, Section [0054].

7. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (U. S. 2002/0057351) in view of Suzuki (U. S. Patent No. 6,380,975) further in view of Nakamura (U. S. Patent No. 6,278,492).

Regarding claim 9, Suzuki et al. and Suzuki ('975) fail to specifically disclose the image processing with respect to the quality of the image is a gamma compensation. However, Suzuki et al. discloses the digital signal processor DSP 33 processes image data and supplies image data to memory card 24 via buffer memory 37, Figure 4, Page 3, Section [0051]. And Nakamura discloses a camera, in which image signal output from A/D conversion circuits 15R, 15G and 15B are sent to digital processing circuit 16, which processes the image signals with digital signal processing such as gamma processing (Column 4, Line 65 – Column 5, Line 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the device in Suzuki et al. and Suzuki ('975) by the teaching of Nakamura in order to improve the quality of the image data.

Regarding claim 10, Suzuki et al. and Suzuki ('975) fail to specifically disclose the image processing with respect to the quality of the image is a contour emphasizing or unemphasizing compensation of the image. However, Suzuki et al. discloses the digital signal processor DSP 33 processes image data and supplies image data to memory card 24 via buffer memory 37, Figure 4, Page 3, Section [0051]. And Nakamura discloses a camera, in which image signal output from A/D conversion circuits 15R, 15G and 15B are sent to digital processing circuit 16, which processes the image signals with digital signal processing such as contour enhancement (Column 4, Line 65 – Column 5, Line 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Suzuki et al. and Suzuki ('975) by the teaching of Nakamura in order to improve the sharpness of the image data.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hashimoto et al. (U. S. Patent No. 6,111,604) discloses digital camera which detects a connection to an external device.

Kondo et al. (U. S. Patent No. 6,151,652) discloses I/O card electronic equipment using I/O card, and procedure of starting up such electronic equipment.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T NGUYEN whose telephone number is (703) 308-9297. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN
6/11/2004 Luongthunguyen

LUONG T. NGUYEN
PATENT EXAMINER